

Steppe Whimbrels *Numenius phaeopus alboaxillaris* at Maputo, Mozambique, in February–March 2016, with a review of the status of the taxon

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Des Courlis corlieux *Numenius phaeopus* de la sous-espèce *alboaxillaris* à Maputo, Mozambique, en février–mars 2016, avec une analyse du statut de ce taxon. Deux Courlis corlieux *Numenius phaeopus* de la sous-espèce *alboaxillaris* ont été découverts dans la baie de Maputo, Mozambique, les 10–12 février 2016—les premiers à être observés en Afrique depuis 1965. Des différences de taille, de structure et de plumage semblent indiquer qu’il s’agissait d’un mâle et d’une femelle. La femelle était présente dans la zone jusqu’au 28 février et le mâle jusqu’au 24 mars. Le taxon est peu connu et a été déclaré éteint à tort en 1994, mais un petit nombre de nicheurs a récemment été découvert en Russie. Son histoire est obscure et sa taxonomie peu claire. Il est recommandé de rechercher cet oiseau en Afrique pendant l’été austral.

Summary. Two Steppe Whimbrels *Numenius phaeopus alboaxillaris* were found at Maputo Bay, Mozambique, on 10–12 February 2016, the first record in Africa since 1965. They were tentatively sexed as male and female; the female was resident in the area until 28 February and the male until 24 March. The taxon is little known and was erroneously declared extinct in 1994, but was recently found breeding in very small numbers in Russia. Its history is obscure and taxonomy unclear. Observers are encouraged to search for this bird in Africa during the austral summer.

In early February 2016, Ross Hughes (RH) and I found a group of Eurasian Curlews *Numenius arquata* in Maputo, only our second record of the species in more than five years of birding in Mozambique. Wanting to learn more about the race *N. a. orientalis*, I reviewed Corso *et al.* (2014) and found illustrations of *N. phaeopus alboaxillaris*, a subspecies of Whimbrel, whose type specimen was collected at Inhambane, Mozambique, in 1906 (Lowe 1921). As details in most relevant reference works (Clancey 1996, Turpie 2005) were scant, I posted a call for information online. This elicited no interest, so I decided to repost the request with some images of Whimbrel to attract attention, only to find that I had none. On 10 February, I stopped briefly at Maputo Bay to photograph a flock of 27 Whimbrels at a high-tide roost (25°56′29.52″S 32°37′28.24″E). Upon reviewing the images later that day I discovered, to my amazement, some of a bird with clean white underwings and a very pale lower rump matching the description of *N. p. alboaxillaris*. I shared these online and received rapid responses from J. F. J. Jansen, P. Köhler, T. Prater, P. Tomkovich and V. Morozov, who confirmed its identity. According to the literature, the taxon, informally named ‘Steppe Whimbrel’ (Zöckler

1998, British Birds Rarities Committee 2016), is very rare and little known.

I returned to the site next day, but could not relocate the bird. However, on 12 February, at the same spot, RH and I found a Steppe Whimbrel that was clearly different from the first bird, being smaller and greyer, with a darker bill. After a series of sightings along the Maputo seafront, two birds were found at the roost in the afternoon.

Their routine was established fairly quickly, both birds mostly roosting on a sandy beach with a group of 20–30 *N. p. phaeopus*. The smaller individual fed in a well-defined and vigorously defended territory on the intertidal zone c.400 m from the roost, while the first foraged along the shore 1 km away, without apparently defending a territory. The birds were aged as adults based on their very fresh plumage (Cramp & Simmons 1983) and were tentatively sexed (see below) as a female (Fig. 1) and a male (Fig. 2). The female was last observed on 28 February (RH) and the male on 24 March. They were seen by a small number of observers and were photographed.

Description and Identification

Both birds were similar overall to *N. p. phaeopus*, to which they could be compared directly, but had a clean white belly and vent, lacking any



Figure 1. Steppe Whimbrel *Numenius phaeopus alboaxillaris*, presumed adult female, Maputo Bay, Mozambique, 10 February 2016 (Gary Allport). Note wing projection beyond tail, crisp plumage tones, fine and well-defined breast streaking, and clean white unmarked vent and undertail.

Courlis corlieu *Numenius phaeopus* de la sous-espèce *alboaxillaris*, présumé femelle adulte, baie de Maputo, Mozambique, 10 février 2016 (Gary Allport). Noter la projection de l'aile au-delà de la queue, le plumage aux tons nets, les stries de la poitrine fines et bien définies, et le bas-ventre et les sous-caudales blanc pur.



Figure 2. Steppe Whimbrel *Numenius phaeopus alboaxillaris*, presumed adult male (third from right) with Whimbrels *N. p. phaeopus*, Maputo Bay, Mozambique, 14 February 2016 (Gary Allport). Note slightly larger size, and paler and grayer plumage than adjacent nominate *phaeopus*. Breast cleanly marked dark grey on white background with pectoral band demarcated higher on breast. Wings shorter than the first *alboaxillaris*, approximately same length as tail.

Courlis corlieu *Numenius phaeopus alboaxillaris*, présumé mâle adulte (troisième à partir de la droite) avec Courlis corlieux *N. p. phaeopus*, baie de Maputo, Mozambique, 14 février 2016 (Gary Allport). Noter la taille légèrement plus grande et le plumage plus pâle et plus gris de *N. p. alboaxillaris*. Poitrine aux rayures gris foncé nettes sur fond blanc et bande pectorale plus haute sur la poitrine. Ailes plus courtes que chez le premier *alboaxillaris*, environ aussi longues que la queue.

dark lanceolate streaking or chevrons on the vent and undertail-coverts; the upperparts were colder and paler greyish brown. The first individual was larger, longer- and broader-winged than the

second, and not vocal; it was tentatively sexed as a female. It was also less strikingly plumaged, with more brownish tones than the second bird, but had a primary extension well beyond the



Figure 3. Steppe Whimbrel *Numenius phaeopus alboaxillaris*, presumed adult female, Maputo Bay, Mozambique, 12 February 2016 (Gary Allport). Note white axillaries with fine blackish shaft-streaks towards the tip, narrow band of barring on the flanks, and pale tail. Courlis corlieu *Numenius phaeopus alboaxillaris*, présumé femelle adulte, baie de Maputo, Mozambique, 12 février 2016 (Gary Allport). Noter axillaires blanches aux fins traits rachiaux noirâtres vers le bout, bande étroite de rayures sur les flancs, et queue pâle.



Figure 4. Steppe Whimbrel *Numenius phaeopus alboaxillaris*, presumed adult male, Maputo Bay, Mozambique, 21 February 2016 (Callan Cohen). Note clean white axillaries and underwing, and white outer tail. Courlis corlieu *Numenius phaeopus alboaxillaris*, présumé mâle adulte, baie de Maputo, Mozambique, 21 février 2016 (Callan Cohen). Noter axillaires et dessous de l'aile blanc pur, et l'extérieur de la queue blanc.

tail—a feature so far found only in this individual (Fig. 1). The second individual was paler and greyer than most Whimbrels present (Fig. 2), smaller and shorter winged than the female, and very vocal and aggressive, especially later in the period; it was tentatively sexed as a male.

Based on the photographs, the following features were identified as separating the two *alboaxillaris* from nominate *phaeopus* (based on adults in freshly moulted plumage):

1. Axillaries and underwing initially appeared pure white, but in photographs both birds



Figure 5. Steppe Whimbrel *Numenius phaeopus alboaxillaris*, presumed adult male, Maputo Bay, Mozambique, 14 February 2016 (R. Hughes). Note pale lower rump with relatively few thin shaft-streaks and black-and-white 'laddered' outer tail, with darker central tail feathers.

Courlis corlieu *Numenius phaeopus alboaxillaris*, présumé mâle adulte, baie de Maputo, Mozambique, 14 février 2016 (R. Hughes). Noter le bas du croupion pâle avec assez peu de traits rachiaux minces, extérieur de la queue quadrillée noir-et-blanc, et rectrices centrales plus sombres.



Figure 6. Steppe Whimbrel *Numenius phaeopus alboaxillaris*, presumed adult female (right), with adult Whimbrel *N. p. phaeopus* showing differences in rump and tail pattern, and larger body size in *alboaxillaris*, Maputo Bay, Mozambique, 21 February 2016 (Callan Cohen)

Courlis corlieu *Numenius phaeopus alboaxillaris*, présumé femelle adulte (à droite), avec *N. p. phaeopus* adulte montrant les différences de pattern du croupion et de la queue et la taille plus grande de *alboaxillaris* ; baie de Maputo, Mozambique, 21 février 2016 (Callan Cohen)

had fine blackish shaft-streaks over the terminal 15% of the length of the axillaries (Figs. 3–4). The underwing primary-coverts were finely barred grey. The axillaries in nominate *phaeopus* are barred blackish brown and white.

2. Upper rump and lower back clean white, although there was a suggestion of darker centres at the base of the white back feathers in some photographs (Fig. 5). The lower rump showed some narrow dark streak-centred feathers, which varied in visibility, but close



Figure 7. Steppe Whimbrel *Numenius phaeopus alboaxillaris*, presumed adult male (right) with Whimbrel *N. p. phaeopus*, Maputo Bay, Mozambique, 21 February 2016 (Callan Cohen). Note clean white underwings, axillaries, vent and undertail-coverts of *alboaxillaris*; also more narrowly barred and paler tail, narrow flank bars and cleaner-toned upper breast and face.

Courlis corlieu *Numenius phaeopus alboaxillaris*, présumé mâle adulte (à droite) avec *N. p. phaeopus*, baie de Maputo, Mozambique, 21 février 2016 (Callan Cohen). Noter le dessous de l'aile, les axillaires, le bas-ventre et les sous-caudales blanc pur de *alboaxillaris* ; de plus la queue plus étroitement barrée et plus pâle, les rayures aux flancs plus étroites et le haut de la poitrine et la face plus nets.

examination of photographs showed max. 3 on the female and eight on the male (Figs. 5–6). The uppertail-coverts were ‘laddered’ with clean black-and-white bars, and differed from the lower rump feathers (the two have been confused in some texts). The *phaeopus* showed shaft-streaks on the upper rump and many lanceolate shaft-streaks and chevrons on the lower rump.

3. Outer tail feathers were clean white in the male (Fig. 5) and greyish white (with a buff wash in some lights) tipped white in the female (Fig. 6); both were ‘laddered’ with narrow black bars on both webs over their entire length. The tail was very pale but showed contrast between the darker central rectrices (patterned with pale grey and black ‘laddering’) and paler outer feathers (Fig. 5). In contrast, most *phaeopus* had

pale to mid-brown tails, barred black and relatively uniform (Figs. 6–7). Some *phaeopus* had a pale outer web to the basal third of the outermost tail feathers.

4. The outer web of the fifth primary (from the innermost) had five clean pale greyish-brown spots, which reached the outermost edge of the web. No *phaeopus* exhibited this feature, although a few had similar but very faint barring.
5. The breast was finely streaked blackish brown on a clean white or greyish-white background, the streaking ending in a pectoral band higher up the breast than in many, although not all, *phaeopus* (Figs. 1, 2, 4 and 7).
6. Both *alboaxillaris* appeared more bulky—‘tubby’—than nominate *phaeopus*, and had noticeably broader and longer wings in flight, with longer secondaries and more paddle-

shaped primaries. At rest, the primaries extended beyond the tail in the female.

Key identification features were outlined by Lowe (1921) in the type description: ‘axillaries, under-wing coverts and undertail coverts were pure white. The back and rump were also pure white with no hidden spots as in *Numenius phaeopus phaeopus*, while the fore neck and upper pectoral region were marked with thin streaks of brown, not so numerous nor extending so far down the breast and flanks as in typical *N. phaeopus*.’ Examination of the type series in the Natural History Museum, Tring (NHMUK), exhibited by Lowe in 1921 reveals that only one of the four specimens—the holotype (NHMUK 1903.10.14.292)—has a completely unstreaked rump (N. J. Collar pers. comm.; A. J. Prater *in litt.* 2016). The other three exhibit minor streaking on the lower rump, similar to the birds in Maputo, which would probably be invisible in the field but is evident in good-quality digital images. C. S. Roselaar (*in* Cramp & Simmons 1983: 496) gave the most detailed description of the diagnostic features, which fit very well with the characters observed in the birds in Maputo. Both birds also matched illustrations of *alboaxillaris* in Corso *et al.* (2014).

Behaviour

In addition to differences in plumage and structure, the male displayed a distinctive behavioural trait: an aggressive stance in which it lowered its head, fanned and twisted its tail through nearly 90°, in response to Grey-headed Gulls *Larus cirrocephalus* attempting kleptoparasitism and towards other Whimbrels entering its feeding territory. This was not observed in other Whimbrels at Maputo, but a similar display is described for *phaeopus* near its nest (Cramp & Simmons 1983).

Both birds also behaved differently from nominate *phaeopus* at the high-tide roost. When disturbed, all *phaeopus* would take flight, often leaving the *alboaxillaris* to stroll away alone: both were often very confiding, permitting close approach. The two were never seen interacting with one another. The male’s territory covered a very public area of beach, which is a religious site, frequently used for baptisms in the shallow surf, with often tens or hundreds of people present. The male Steppe Whimbrel completely ignored

them, often casually feeding within a few metres of worshippers.

Vocalisations

The male called frequently, mostly giving the ‘bubbling’ call (Cramp & Simmons 1983) or the ‘low trill’ (Skeel 1978), but this was truncated to two phrases, with sometimes a third additional trill (the latter recorded; see <http://www.xeno-canto.org/308217>). When the bird called at other Whimbrels flying over its feeding territory, it uttered a much more forceful, three or four-part bubbling call, comprising two or three trills rolling into one another, followed by a short pause and a more staccato third / fourth phrase, almost akin to the flight call. The many nominate *phaeopus* ‘bubbling’ calls heard consisted of a trailing series of up to 14 phrases; other Whimbrels have only very occasionally been heard to utter a three-part call with the pause–staccato phrase.

It is worth noting that the ‘bubbling’ call is frequently used by Whimbrels in the southern African and Indian Ocean wintering areas. This call is little known to European birders, who are usually more familiar with the seven-note flight call used on passage, leading to some misidentifications of Whimbrel making the ‘bubbling’ call as Eurasian Curlew since it is very similar to the more well-known song of that species (R. Safford *in litt.* 2016).

History of the taxon

Although the earliest specimens were collected in Russia and Central Asia, the taxon was described from specimens collected later in eastern Africa. The description of *N. p. alboaxillaris* is in the minutes of a dinner of the British Ornithologists’ Club in April 1921, authored by Percy Lowe. He exhibited four specimens, all now in Tring:

- NHMUK 1882.12.3.2. Collected in Mombasa, Kenya, by Rev. H. F. Buxton. Undated.
- NHMUK 1894.2.19.99. Collected on Zanzibar, Tanzania, in ‘winter’ by Dr Kirk (*per* H. Seebohm). Undated.
- NHMUK 1897.2.26.21. Collected in Mozambique (no precise locality) in 1897 by W. A. Churchill (British Consul to Mozambique).
- NHMUK 1903.10.14.292 (holotype). Collected at Inhambane, Mozambique,

on 25 September 1906, by C. H. B. Grant (presented by C. D. Rudd). That a specimen collected in 1906 has a registration number starting '1903' is a consequence of it forming part of a large collection made over an extended period that reached the museum in batches, the first of which arrived in 1903; specimens were subsequently categorised according to taxonomy, not by date (Sclater 1911: 209). The specimen was specified by Sclater (1912: 60), confirming the collection details. Warren (1966: 9) gives the collection date as '25 Sept. 1900'. It is probable that she misread the specimen label '06' for '00', and was perhaps induced to do so by the seeming contradiction between collecting date and registration number (R. Prÿs-Jones *in litt.* 2016).

The type description refers to both the plumage characters and the restricted distribution of the four specimens, which was considered especially important in conjunction with Meinertzhagen's record of Whimbrel breeding on Flat Island, Mauritius, in November 1910 (Meinertzhagen 1912). The latter record was considered by the editor of *Ibis* as needing confirmation (editorial footnote in Meinertzhagen 1912: 102) and is now generally regarded as dubious (R. Safford pers. comm.). In light of what we now know of Meinertzhagen's fraudulent behaviour (Knox 1993, Rasmussen & Collar 1999, Rasmussen & Prÿs-Jones 2003, Garfield 2007) there is good reason to be cautious. Flat Island is now well known and there have been no further records (R. Safford pers. comm.). Nevertheless, the Mauritian record cannot be completely discounted, as a Whimbrel collected on 6 November 1928 on Madagascar had two well-developed eggs in its ovaries (Lavauden 1932 *per* R. Safford) and there is strong evidence—but no proof—of Common Sandpiper *Actitis hypoleucos* and Eurasian Curlew breeding in the austral summer in southern Africa (Hockey & Douie 1995).

The role Meinertzhagen's report played in the description of *alboaxillaris* is unclear, but it may well have aroused Lowe's curiosity to search through Whimbrel specimens from eastern Africa. Clancey, who knew Meinertzhagen personally (D. Allan pers. comm.), later commented 'When

Lowe described the form in 1921 he believed that it bred in the lowlands of East Africa and on the island of Mauritius' (Clancey 1964a). If Meinertzhagen's report was fabrication then this was a remarkable twist of fate.

The taxon was not recorded in Africa after 1906 until two were shot in Durban Bay, South Africa, in 1961 (Clancey 1964a,b); both specimens are preserved in the Durban Natural Science Museum (DNSM 1043–1044; Allport & Allan 2016). A female was subsequently collected at Mikindani Bay, Tanzania, on 19 April 1965 (RMNH.AVES 31034; Naturalis, Leiden, *per* C. S. Roselaar). Finally, there is a recently identified specimen, mounted for public display in the Museu de Historia Natural, Maputo, without collection details, but which may have been collected alongside seven Whimbrels taken in 1941–57 at Maputo Bay, including two birds c.1.5 km from the location in 2016 (Allport *et al.* 2016). A photograph claimed to be of this taxon from the Durban area (Brooke 1974) shows that ornithologists were aware of the form in the 1970s (J. C. Sinclair pers. comm.), but the picture is too poor for certain identification.

The known range in the region is therefore East and south-eastern Africa. The taxon is stated as occurring on the Indian Ocean islands and Madagascar (e.g. CMS 2014) but the only notional evidence of this is from Meinertzhagen (1912) in Mauritius (see above). There are no records from Madagascar (Hawkins & Safford 2013).

It is unclear when the records from the breeding grounds were linked to the African specimens and the type description. Details of specimens from Russia and Central Asia are patchy, and analysis is mostly in Russian. Morozov (1998, 2000) provided the best summary of the history of *alboaxillaris* records and distribution. The first specimens from the Asian steppes were collected around Orenburg and Samara by Eversmann (1866) in 1861–62 and Ryabinin (1875) in 1852–68 (specimens in the Zoological Institute of the Russian Academy of Sciences in St. Petersburg; ZISP). Russian ornithologists mentioned the form as early as 1934 (Buturlin 1934, Gladkov 1951), but it was only when Gladkov (1951) became widely available in English translation (in Dementiev *et al.* 1966) that the link between the records from East Africa with those from Central Asia and Russia emerged in the wider literature.

Status

N. p. alboaxillaris has never been reported as common. Sightings and specimens collected from the steppe zone were made until 1974 (Morozov 2000), but as concern grew for the flagship birds of the steppe grasslands, such as Slender-billed Curlew *N. tenuirostris*, in the 1980s and ornithological research in the region intensified, it was clear that *alboaxillaris* was very rare indeed, and in 1994 it was declared extinct (Belik 1994).

However, in 1997, during efforts to find Slender-billed Curlew, 5–6 pairs of *alboaxillaris* were found breeding in Russia, east of the southern end of the Urals, in wet valley grasslands in the steppe zone (Morozov 1997, 1998, 2000; V. Morozov *in litt.* 2016). The area was revisited in 1998, and possibly as many as 11 pairs were found at a nearby locality (Zöckler 1998, Zakharov 2006 *per* V. Morozov; C. Zöckler *in litt.* 2016). The 15 km² of floodplain meadows was revisited and 3–5 pairs were found breeding in 1999–2000, with 5–6 pairs in 2001, one or two pairs in 2002 (Zakharov 2006 *per* V. Morozov) and eight pairs in 2007 (Morozov & Kornev 2009). In addition, a pair was found nesting at Abdulino, in north-west Orenburg Oblast (near Polibino, where a specimen with a brood patch was taken in May 1896: Karamzin 1901) on 10 May 2009 (Morozov & Kornev 2009). This is the last documented sighting; it is unclear if anyone has revisited the main site since.

As part of further Slender-billed Curlew searches, 11 birds considered to be possibly *alboaxillaris* were observed on the north shore of the Caspian Sea within a group of 300 Whimbrels in August 2010 (Köhler *et al.* 2011, 2012).

Based on the above, in 2014 the Expert Working Group on Numeniini for the Convention on Migratory Species (CMS) estimated that the global population of *alboaxillaris* was 100 individuals or fewer (CMS 2014) and probably declining, making it the least known and rarest extant taxon of the Numeniini in the world.

Breeding range and phenology

Little is known concerning the breeding range of *alboaxillaris*. There are just two proven breeding localities, near the village of Baimovo in Chelyabinsk region, in the southern foothills of

Russia's Urals (53°45'N 58°50'E; Zöckler 1998, Morozov 2000) and at Polibino, c.400 km to the west. There are other records in the breeding season, including specimens with brood patches, from two localities in Kazakhstan, 250 km to the east, and Chapaevo, 600 km to the south-west (Morozov 2000). All records are from damp areas, in broad open river valleys in the steppe region, rather than in the more extensive dry steppe grasslands (Morozov 2000).

The known and suspected breeding range of *alboaxillaris* lies south of the eastern part of the 'West Siberian' range of *phaeopus* (Cramp & Simmons 1983, Tomkovich 2008). The exact limits of the range of nominate *phaeopus* remain to be established (Tomkovich 2008, Lappo *et al.* 2012), but there is no evidence of an overlap in breeding range of the two forms. However, it is clear that Whimbrels breeding further north pass over the breeding grounds of *alboaxillaris* in some numbers en route to their own breeding grounds in the southern tundra and taiga zone. Many accounts from Central Asia refer to *phaeopus* on passage; most recently Wassink (2015) described *phaeopus* as a common passage migrant throughout Kazakhstan, and specimens are available from within the breeding range of *alboaxillaris* presumably involving birds on spring passage (Engelmoer & Roselaar 1998: Table 86, note 5).

Breeding phenology can be tentatively inferred from the hatching dates of 25–26 May 1997 (Morozov 2000) and from a chick collected on 16 May 2007 (ZMMU 261), and compared with incubation, pairing and arrival times of *phaeopus* in Scotland and Iceland (Grant 1989, Gunnarson 2010). This suggests that *alboaxillaris* arrives on its breeding grounds in early to mid April, 3–4 weeks ahead of nominate *phaeopus* (Gunnarson 2010). This fits with mid-April collection dates of Whimbrels in Kazakhstan and Turkmenistan (Engelmoer & Roselaar 1998). In Shetland, Whimbrels arrive around 24–26 April, either as established pairs or with males arriving c.4 days before females (Grant 1989). Skeel (1979) reports that singing commences as females arrive, and in Shetland pairing and egg laying commences within ten days. The migration schedule for nominate *phaeopus* is not very clear in Central Asia, but it is probable that the birds pass through the breeding grounds of

alboaxillaris as the latter is establishing territories during the last two weeks of April (Engelmoer & Roselaar 1998).

Taxonomic status

N. p. alboaxillaris has had a mixed taxonomic history. Several authors subsumed it within nominate *phaeopus*, without explanation (e.g. Meinertzhagen 1930, Peters 1934, Mackworth-Praed & Grant 1962, Vaurie 1965, Urban *et al.* 1986). However, the majority of handbooks accept its validity (e.g. Cramp & Simmons 1983, Hayman *et al.* 1986, van Gils & Wiersma 1996, van Gils *et al.* 2016).

There is also reference to individuals with intermediate characters. Morozov (2000) assigned 26 fully grown specimens held in the Zoological Museum of Moscow State University (ZMMU) and ZISP, as *alboaxillaris*; of these, five have pure white axillaries, while the rest show 'some brownish flecks'. All 26 are reported to have a pure white lower back and 'short tail coverts'. Of eight additional birds reported as 'transitional', all have flecks on the axillaries and three have flecks on the upper back, but it is unclear if these are the features used to assign the specimens as transitional.

C. S. Roselaar (*in* Cramp & Simmons 1983) stated that 'Nominate *phaeopus* and *alboaxillaris* probably intergrade somewhere in south-east European USSR, as intermediately coloured birds with only sparsely marked axillaries, under-wing coverts and flanks occur, sometimes migrating as far west as central Europe.' No reference is given in the text, but intergrades were reported until 1969 on passage in Hungary (Sterbetz 1995). However, Engelmoer & Roselaar (1998: 208, 211) make no mention of intergrades; indeed, having undertaken a thorough analysis, they make much of the distinctiveness of *alboaxillaris*. They include birds with white axillaries and those with 'brown bars along one side with one or two bars on top of the other' as *alboaxillaris*.

Ranges of Whimbrel taxa

N. phaeopus is polytypic, comprising a stepped cline range of taxa across the northern Holarctic, with the majority of its breeding range lying in the tundra and northern taiga zone above 60°N (Cramp & Simmons 1983). Taxonomists variously recognise three (*phaeopus*, *variegatus*

and *hudsonicus*) to six forms breeding in different parts of the tundra and northern taiga. Nominate *phaeopus* can include *islandicus* and *rogachevae* (and *alboaxillaris*—see above); *variegatus* is consistently treated as a single subspecies; *hudsonicus* can include *rufiventris* (see van Gils *et al.* 2016).

Engelmoer & Roselaar (1998) undertook the most complete and consistent recent examination of morphology and demonstrated that there is a cline in size in the tundra and taiga breeding forms, ranging from the largest in the west, in Iceland (*N. p. islandicus*) and Fennoscandia and western Siberia (nominate *phaeopus*) (both of which migrate to Africa) through *variegatus* in eastern Siberia (migrating to South-East Asia and Australasia), to the North American forms *rufiventris*, breeding in Alaska, and *hudsonicus* in the Hudson Bay area (both migrating to South America), which are the smallest. Note that the recently described and very poorly known form *rogachevae* from central Siberia (Tomkovich 2008; non-breeding area unknown) was not covered by Engelmoer & Roselaar (1998).

There is also a trend in coloration. The Icelandic breeding population is palest and there is increasing depth to the underwing and axillaries barring and darkness of rump coloration within the breeding range of some subspecies—notably *phaeopus*—and across the tundra and taiga breeding forms in a cline of increasing dark coloration from west to east, the extreme being the wholly dark *hudsonicus*.

This cline in coloration and size in the tundra and taiga breeding forms is clear, but there is scant mention in any taxonomic work of how *alboaxillaris* fits within these otherwise straightforward trends. In fact, *alboaxillaris* is the largest and palest taxon, and breeds to the south of all the other taxa. Thus, it lies outwith the cline and at a longitude where Whimbrels breeding further north are quite dark-plumaged west Siberian *phaeopus* (and probably the birds wintering alongside *alboaxillaris* in eastern Africa). Analysing biometrics Engelmoer & Roselaar (1998: Fig. 96) found *alboaxillaris* 'clustered' with populations of *islandicus* from Iceland and the British Isles, and are morphologically more dissimilar from a subsample of *phaeopus* taken in Kazakhstan (which are presumably birds en route to the nearest adjacent west Siberian breeding areas further north) than *islandicus*.

In summary, across most of its breeding range, Whimbrel varies clinally and a varying number of subspecies are recognised that intergrade more or less ‘continuously’ into one another across its northern Holarctic, mostly tundra breeding, distribution. However, there is an additional and separate outlying taxon, *alboaxillaris*, which does not fit this pattern. *N. p. alboaxillaris* is also sympatric with *phaeopus* at the time of mate choice, which together with the possible differences in voice suggest that its taxonomic position merits further attention.

Next steps

Basic identification information for Steppe Whimbrel is badly needed. The first high-quality illustration of *alboaxillaris* was published by Corso *et al.* (2014). To date, there is no consolidated information on the taxon, nor any full description of its field characters. The species account in *Roberts* (Turpie 2005), the authoritative work on southern African birds, treats *alboaxillaris* as if extinct, providing scant detail and overlooking subsequent important work such as Morozov (1997 *et seq.*). It is not covered by Chittenden *et al.* (2012) for the same reason (D. Allan pers. comm.) or by modern field guides, except Ayé *et al.* (2012), which includes a basic illustration. Until the birds in Maputo were discovered, there were no published field photographs and very few field ornithologists have had the opportunity to observe it in the wild.

The birds in Maputo have aroused interest in Steppe Whimbrel and it is hoped that this will lead to a better understanding of its distribution, numbers and taxonomic status. DNA analysis of Whimbrel and other *Numenius* is underway, to examine the latter question in more detail.

The limited evidence suggests that *alboaxillaris* spends the austral summer in southern Mozambique and on the east coast of South Africa, with a small number of sites, such as Maputo Bay, being of special importance (Allport & Allan 2016, Allport *et al.* 2016). Given that the most recent population estimate of *alboaxillaris* is 100 individuals or fewer (CMS 2014), it may occur over a small area of coast, so observers are strongly encouraged to search carefully, especially in this area, in September–March. Finding additional birds is a critical first step in research and conservation action to ensure the continued

survival of this form, which is undoubtedly yet another taxon of *Numenius* on the brink (Pearce-Higgins *et al.* submitted).

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